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ABSTRACT

To help students organize and integrate new information with past knowledge, college reading teachers can offer students cognitive schemata that sort information into general and specific concepts. Without this ability, students will be unable to comprehend, analyze, synthesize, interpret, or transfer information. In addition, they will be unable to structure ideas hierarchically or process information for effective retrieval. Composition teachers also find that the students' ability to distinguish between general and specific ideas is important. In writing classes, students must differentiate between opinions and facts, and they often have the more complex task of selecting appropriate facts, eliminating irrelevant details, relating ideas, and sequencing them in a logical order. If students are unable to perceive how their ideas are related, they cannot structure them in an organized manner. The ability to discriminate between general and specific ideas is also essential to students who deliver speeches or who participate in debates. If cogent facts are not presented, the speech is ineffective. Studies show that the ability to remember information is also related to the ability to grasp how ideas are connected. Students who remember best are those who can recall the structure of ideas. Thus, the ability to distinguish between general and specific concepts is fundamental to clear thinking, and its importance cannot be overemphasized. (HOD)

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Theoretical Foundation and Practical Application of a Schematic Approach to College Learning

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The college teacher of reading improvement must primarily help students to succeed in their curricula. Good instruction is critical to this process and must begin with a sound theoretical foundation.

Bruner (1966) emphasized that a theory of instruction had to be based on a theory of learning. He defined learning as the process of integrating prior knowledge with new information. Recently, psycholinguistic theorists have investigated learning to read. Their research centered on comprehension rather than decoding and suggested that reading comprehension is the building of bridges between the new and the known, (Smith 1971).

Much psycholinguistic research was based on Piaget's work that investigated the nature of knowledge. Piaget brought attention to the ways in which the brain integrates external stimuli and adapts to the environment. His findings led him to conclude that concepts are stored in the mind in schemata, (Piaget 1954).

Piaget's notions of internal schemata formed the basis for many investigations of reading comprehension. There is now general agreement that the brain receives stimuli and sorts and schematically arranges concepts, (Pearson and Johnson, 1978).

Many underprepared college students face a serious problem. They are unable to apply an internal schema to written or spoken college material. Application of this innate cognitive process has either been aborted early in their schooling or was never fully developed and refined. As a result, cognitive development

is limited and frequently students fail their courses.

Therefore, what must be taught is the application of internal schemata to external stimuli in order to give students a tool for academic success. Ausubel (1960, 1961), has marshalled an impressive body of evidence to prove that "advanced organizers" (summary statements) facilitate comprehension and memory. In particular, college students can be taught, when reading and listening, to distinguish general concepts from specific concepts. This differentiation forms the cognitive schema for comprehension since all information, written and spoken, can be separated into the "general" and the "specific." Teaching students this system of sorting information provides a facile way to organize and integrate new data with past knowledge; once this is accomplished, learning has occurred.

College reading teachers can offer students cognitive schema that sorts information into general and specific concepts. This teaching method has two advantages: 1) students have a model of comprehension for all written and spoken college material; and 2) students see that all reading skills are interrelated. Hence students will stop focusing on specific and fragmented pieces of information and organize their thoughts into a hierarchical and logical sequence.

A recent study reveals students' lack of organized and logical thinking. When 106 Queensborough Community College lower level reading skills students were tested in September,

1984, they showed glaring deficiencies in conceptual skills. Many of them were unable to differentiate between general and specific concepts. For example, 42 percent did not identify chair as a more general word than recliner, and 43 percent did not select armed forces as more general than army. The tables that follow show the percentages of students who did not identify the more general word in pairs of words and in sets of three words.

PERCENTAGES OF 106 STUDENTS WHO DID NOT IDENTIFY THE MOST GENERAL TERM IN PAIRS OF WORDS

1. chair, recliner	42%
2. teacher, professor	45%
3. newspaper, media	36%
4. North America, The United States	67%
5. army, armed forces	43%

PERCENTAGES OF 62 STUDENTS WHO DID NOT IDENTIFY THE MOST GENERAL TERM IN SETS OF THREE WORDS

1. Lipton Tea, beverage, tea	35%
2. musician, Donna Summers, singer	56%
3. Chevrolet, car, transportation	34%
4. apple pie, pastry, pie	39%

These findings have important implications for teachers of reading and study skills, writing and speech classes, as well as for their students who must remember the information they have been taught for tests.

The ability to discriminate between general and specific concepts is essential to the acquisition of reading and study skills. For instance, when reading instructors ask students to find the main idea in a paragraph, they are asking them to determine which statement in a paragraph is more general than the others. When they ask students to make inferences about characters in a book based on the things they do, they are requesting them to generalize on the basis of particular instances. In addition, study skills such as outlining, notetaking, summarizing or noting authors' organizational patterns are interrelated in that they require this common cognitive skill of ordering information. Thus the ability to discriminate between general and specific concepts is a crucial part of efficient reading and studying. Without this ability, students are unable to comprehend, analyze, synthesize, interpret or transfer information. They cannot structure ideas hierarchically or process information for effective retrieval.

Composition teachers also find that the students' ability to distinguish between general and specific ideas is important. Students are expected to write thesis statements and to support their ideas with specific arguments. In writing classes, students must differentiate between opinions and facts, and they often have the more complex task of selecting appropriate facts, eliminating irrelevant details, relating ideas and sequencing them in logical order. If students are unable to perceive how their ideas are

related, they cannot structure them in an organized manner.

The ability to discriminate between general and specific ideas is also essential to students who deliver speeches or who participate in debates. Students on a debating team must express a point of view and explain it, and they must defend their ideas when critical questions are asked. They must understand the difference between general and specific concepts, and they must offer convincing and relevant facts as conclusive evidence for the opinions expressed. If cogent facts are not presented, the speech is ineffective. According to Jerome Bruner (1973) man's mastery of language depends on this "categorizing tendency". He points out that "we organize experience to represent not only the particulars that have been experienced, but the classes of events of which the particulars are exemplars. We go not only from part to whole, but irresistibly from the particular to the general."

Studies show that the ability to remember information is also related to the ability to grasp how ideas are connected. Students who remember best are those who can recall the structure of ideas. Understanding the relationships between major and peripheral concepts increases recall. According to psychologists Commins and Fagin (1954) people remember best when they make use of "the natural unity of the material to be memorized." The meaning of the details can often be seen only when the material is understood as a whole.

The ability to differentiate between general and specific concepts is fundamental to clear thinking, and its importance cannot be overemphasized. Too often skills are taught in discrete steps which students perceive as fragmented and isolated. It is essential that students are first thoroughly trained in differentiating between general and specific ideas, and are then led to understand how this ability is applied to reading and study skills, writing, speaking and remembering. The ability to distinguish between general and specific concepts can be used as the unifying theme to help students understand how learning skills are related, and to help them develop proficiency in using them.

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